ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is a wastewater treatment plant (WWTP) with a design capacity of 14.74 million gallons per day (mgd) and thus is considered to be a major facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 et. seq. This permit is proposed to be issued for a period of 5 years.

| Permittee's Name: | City of Nogales | International Boundary and Water | |
|-------------------------------|--|----------------------------------|--|
| | Commission | | |
| Permittee's Mailing Address: | 777 N. Grand Avenue 4171 N. Mesa St., C-100 | | |
| | Nogales, AZ 85648 | El Paso, TX 79902 | |
| Facility Name: | Nogales International Wastewater Treatment Plant | | |
| Facility Address or Location: | 865 Rio Rico Industrial Park | | |
| | Rio Rico, AZ 85648 | | |
| County: | Santa Cruz County | | |
| Contact Person(s): | John Light, Area Operation Manager | | |
| Phone/e-mail address | (520) 281-1832 / John.Light@ibwc.gov | | |
| AZPDES Permit Number: | AZ0025607 | | |
| Inventory Number: | 100620 | | |
| LTF Number: | 73614 | | |

| I. STATUS OF PERMIT(s) | |
|--|--------------------|
| AZPDES permit applied for: | Renewal |
| Date application received: | September 27, 2018 |
| Date application was determined administratively complete: | October 10, 2018 |
| Previous permit number (if different): | n/a |
| Previous permit expiration date: | March 30, 2019 |
| 208 Consistency: | |



In accordance with A.A.C. R18-9-A903(6), a permit cannot be issued for any discharge inconsistent with a plan or plan amendment approved under section 208(b) of the Clean Water Act.

Based on review of the application, there are no changes to the facility that require a new determination of consistency with the Regional Water Quality Management Plan.

City of Nogales / International Bounday and Water Commission has the following permits issued by ADEQ applicable to the Nogales Interational Wastewater Treatment Plant (NIWTP)

| Type of Permit | Permit Number | Purpose |
|------------------------------------|---------------|---|
| Aquifer Protection Permit (APP) | P100620 | Regulates discharges to the local aquifer |
| Multi-Sector General Permit (MSGP) | AZMS72692 | Regulates stormwater discharge |

| II. GENERAL FACILITY INFORMATION | | | |
|-------------------------------------|--|--|--|
| Type of Facility: | Publicly owned treatment works (POTW) | | |
| Facility Location Description: | The NIWTP is located east of Interstate 9 at the Rio Rico Industrial | | |
| | Park in Rio Rico, Arizona. The NIWTP discharges into an unnamed | | |
| | tributary of the Santa Cruz River. | | |
| Permitted Design Flow: | 17 MGD | | |
| Constructed Design Flow: | 17 MGD | | |
| Treatment level (WWTP): | Tertiary Treatment Level | | |
| Treatment Processes (include sludge | Three bioreactors with anoxic zones and aeration zones, | | |
| handling and disposal/use): | secondary clarifiers, sand filters, UV disinfection with | | |
| | chlorination/dechlorination as back up, aerobic digester, a sludge | | |
| | belt filter press, and waste activated sludge storage pond for | | |
| | sludge storage. Dewatered sludge is removed from the storage | | |
| | area and disposed at a landfill due to the pollutants that are | | |
| | present in the influent from Mexico. | | |
| Nature of facility discharge: | The NIWTP receives wastewater from residential, industrial, | | |
| | commercial sources from Nogales, Sonora, Mexico, and domestic | | |
| | and commercial wastewater from the Nogales and Rio Rico, | | |
| | Arizona. | | |
| Number of industrial dischargers: | Nogales and Rio Rico, Arizona – 0 | | |
| | Nogales, Sonora, Mexico - 131 | | |
| Number of significant industrial | Nogales and Rio Rico, Arizona – 0 | | |
| dischargers (SIUs): | Nogales, Sonora, Mexico – 131 | | |
| Average flow per discharge: | The applicant indicates that the average is between 12.86 and | | |
| | 14.29 MGD with a maximum daily flow rate of 24.52 MGD. | | |
| Service Area: | Nogales, Arizona | | |
| | Rio Rico, Arizona | | |
| | Nogales, Sonora, Mexico | | |



| Nogales, Arizona – 20,008 |
|-----------------------------------|
| Rio Rico, Arizona – 18,962 |
| Nogales, Sonora, Mexico – 212,533 |
| Continuous |
| |

| Continuous of intermitter | it discharge. Continuous | | | |
|--|--|--|--|--|
| III. DECENTING MATER | | | | |
| III. RECEIVING WATER | | | | |
| | adopted water quality standards to protect the designated uses of its surface | | | |
| | en divided into segments and designated uses assigned to these segments. The | | | |
| | ary by designated use depending on the level of protection required to maintain | | | |
| that use. | All tracted officers to discharged the solid to a simple of to the solid to the sol | | | |
| Receiving Water : | All treated effluent is discharged through a single outfall to an unnamed | | | |
| | tributary to the Santa Cruz River located at the north end of the NIWTP | | | |
| | approximately ¼ mile below the confluence of Potrero Creek and the Santa Cruz | | | |
| | River upstream of the Tubac Bridge. The outfall is located approximately 8.8 | | | |
| | miles north of the International Boundary and east of Interstate 19. | | | |
| River Basin: | Santa Cruz – Rio Magdelena – Rio Sonoyta | | | |
| Outfall Location(s): | Outfall 001: Township23S, Range13E, Section12 | | | |
| | Latitude31° 27′ 20.86″ N_, Longitude _110° 58′ 05.34″ W_ | | | |
| The outfall discharges to, | or the discharge may reach, a surface water listed in Appendix B of A.A.C. Title 18, | | | |
| Chapter 11, Article 1. | | | | |
| Designated uses for the | Aquatic and Wildlife effluent dependent water (A&Wedw) | | | |
| receiving water listed | Partial Body Contact (PBC) | | | |
| above: | Agricultural Livestock watering (AgL) | | | |
| | | | | |
| | | | | |
| Is the receiving water on | The segment of the Santa Cruz River from the NIWTP outfall to Josephine | | | |
| the 303(d) list? | Canyon is on Arizona's 2018 303(d) List of Impaired Waters. The segment is lised | | | |
| | as a Category 5 impaired water for E. coli for partial body contact in ADEQ's 2016 | | | |
| | Water Quality in Arizona 305(b) Assessment Report. Exceedances of E. Coli were | | | |
| | identified in the segment in 2010, 2014, and 2015, and the reach remains | | | |
| | impaired for E. coli samples. Cadmium was delisted from the 303(d) list and total | | | |
| residual chlorine (TRC) and ammonia were removed from the 4B list. Dissolved | | | | |
| nickel was identified as an exceedance that requires additional monitoring for | | | | |
| | further assessment. ADEQ has developed a draft Clean Water Plan for E. Coli | | | |
| | which has been submitted to the EPA for approval. The Clean Water Plan has | | | |
| total maximum daily loading (TMDL) waste load allocations for the NIWTP. | | | | |
| | ADEQ's draft 2020 303(d) assessment proposes an impairment for nickel. This | | | |
| | permit may be reopened to implement any EPA-approved new Arizona water | | | |



quality standard, such as the proposed nickel impairment, to the receiving water.

Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. There are two standards for the Aquatic and Wildlife uses, acute and chronic. In developing AZPDES permits, the standards for all applicable designated uses are compared and limits that will protect for all applicable designated uses are developed based on the standards.

IV. DESCRIPTION OF DISCHARGE

Because the facility is in operation and discharges have occurred, effluent monitoring data are available. The following is the measured effluent quality reported in the application.

| Parameters | Units | Maximum Daily Discharge Concentration |
|---------------------------------|--------------|---------------------------------------|
| Biochemical Oxygen Demand (BOD) | mg/L | 45 |
| Total Suspended Solids (TSS) | mg/L | 56 |
| Total Kjeldahl Nitrogen (TKN) | mg/L | 13.7 |
| E. coli | cfu / 100 mL | 2419 |

| Facility design removal | BOD 85 % |
|-------------------------|------------|
| rates: | TSS 85 % |
| | N < 10 ppm |
| | |

| V. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT | | | |
|---|--|--|--|
| Date of most recent | June 18, 2018; potential violations were noted as a result of this inspection. | | |
| inspection: | | | |
| DMR files reviewed: | 1/2014 through 11/2018 | | |
| Lab reports reviewed: | 1/2014 through 7/2018 | | |
| DMR Exceedances: | Nickel – January 2015, February 2015, April 2015, June 2015, April 2016, June 2016, March 2017 pH – May 2018, June 2018 Total Suspended Solids – November 2017, April 2018 Lead – April 2018 Whole Effluent Toxicity (WET) (green algae) – October 2016, June 2017, October 2017, January 2018, July 2018 WET (water flea) – April 2016, October 2016, January 2017, October 2017 | | |
| NOVs issued: | 1. September 29, 2014 | | |



| | July 10, 2015 August 11, 2017 Feburary 16, 2018 |
|-------------------------------|---|
| NOVs closed: | N/A |
| Compliance orders / Other: | Civil Action – May 2012 (on-going) |

VI. PROPOSED PERMIT CHANGES

The following table lists the major changes from the previous permit in this draft permit.

| Parameter | Existing Permit | Proposed permit | Reason for change |
|-------------------------------|-------------------------|-------------------------|--------------------------|
| Design Flow | 17.2 MGD | 14.74 MGD | USIBWC reported that |
| | | | the design capacity of |
| | | | the plant was 14.74 |
| | | | MGD. The mass |
| Reporting Location | Mail in hard copies of | DMRs and other | Language added to |
| | DMRs and other | reports to be submitted | support the NPDES |
| | attachments | electronically through | electronic DMR |
| | | myDEQ portal | reporting rule that |
| | | | became effective on |
| | | | December 21, 2015. |
| Carbonaceous Biochemical | CBOD | BOD | Technology-based |
| Oxygen Demand (CBOD)/ | | | effluent limitations may |
| Biochemical Oxygen | | | be selected based upon |
| Demand (BOD) | | | the treatment |
| | | | technology at the plant. |
| | | | BOD is more |
| | | | appropriate secondary |
| | | | oxidation WWTPs. |
| Silver, Zinc, Thallium, Di(2- | Limited | Limit removed and | Data submitted |
| ethlyhexl) phthalate | | requirement moved to | indicated no reasonable |
| (DEHP); Hexahcolor- | | effluent | potential (RP) for an |
| cyclopentadiene; | | characterization (EC) | exceedance of a |
| Endosulfan sulfate; | | monitoring. | standard. |
| Endosulfan (Total); | | | |
| hydrogen sulfide; sulfide | | | |
| Ammonia | Assessment levels based | Monitoring with limits | The AIR is a trackable |
| | on pH and temperature. | using an Ammonia | and enforceable |
| | | Impact Ratio (AIR). | numeric limit. See |
| | | | Section VII for details. |



| Hydrogen sulfide | Limited | EC Monitoring | Data submitted indicated no reasonable potential (RP) for an exceedance of a standard. |
|---|---|--|--|
| Arsenic; Iron; Benzidiene; Benz(a)anthracene; Benzo(k)fluoranthene (PAH); 3,4- benzofluoranthene; Bis(2- chloroethyl) ether; p- Bromodiphyenyl ether; Chrysene; Dibenz(ah)anthracene (PAH); Dibutyl Phthalate; 1,4-Dichlorobenzene; 1,2- Diphenylhydrazine; Indeno (1,2,3-cd) Pyrene; | Assessment levels | Assessment levels removed and requirement moved to EC monitoring. | Data submitted indicated no reasonable potential (RP) for an exceedance of a standard. |
| Phenanthrene; p-Chloro- m-cresol; 2,4- Dinitorphenol; 4,6-Dinitro- o-cresol; 2,4,6- Trichlorophenol; Alachlor | | | |
| Toxicity Identification Evaluation (TIE) / Toxicity Reduction Process – Accelerated Monitoring | If toxicity is detected above a permit limit and the source of the toxicity is unknown, accelerated monitoring is to be conducted every other week until a test exceeds a permit limit or until four tests have been completed. | Accelerated monitoring is be be conducted every other week until a test exceeds a permit limit or until six tests have been completed. | Intermittent WET limit exceedances have been reported throughout the permit term and the source of the toxicity has not been indentified. Requiring a longer period of accelerated monitoring may assist with identifying and reducing toxicity in the effluent. |
| Nogale Pretreatment Requirements | The City of Nogales was required to have an approved Pretreament Program. | The City of Nogales shall continue to conduct monitoring and report upon the parameters of concern at the selected manholes within their Control Authority. The requirement to develop | Data has continually shown that the City of Nogales (and Rio Rico) does not have any SIUs within their Control Authority. |



| | | and implement an approved Pretreatment Program is triggered upon identifying exceedance of the influent limitations or identifying SIUs within their Control Authority. | |
|--|--|--|--|
| Ambient Monitoring | Plan required to be developed and sampling conducted according to approved plan. | Plan to be revised and sampling continued with increased frequencies for certain parameters. Monitoring will be uploaded by permittee into ADEQ's Water Quality Database. | The facility continues to exceed permit limitations, therefore additional ambient monitoring is being conducted to ensure that the designated uses of the watershed are protected. Language added to support the electronic reporting. |
| Manhole 1 Influent Monitoring Monitoring | Monitoring of influent required as part of USIBWC's pretreatment requirements. | Monitoring to be continued with electronic reporting via Discharge Monitoring Reports (DMRs). | Language added to support the NPDES electronic DMR reporting rule that became effective on December 21, 2015. |

Anti-backsliding considerations – "Anti-backsliding" refers to statutory (Section 402(o) of the Clean Water Act) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limits, permit conditions, or standards that are less stringent than those established in the previous permit. The rules and statutes do identify exceptions to these circumstances where backsliding is acceptable. This permit has been reviewed and drafted with consideration of anti-backsliding concerns.

Limits for the following parameter have been removed from the permit because evaluation of current data allows the conclusion that no reasonable potential (RP) for an exceedance of a standard exists:

- Silver
- Zinc
- Thallium
- Di(2-ethlyhexl) phthalate (DEHP)
- Hexahcolor-cyclopentadiene
- Endosulfan sulfate
- Endosulfan (Total)
- Hydrogen Sulfide and sulfide

This is considered allowable backsliding under 303(d)(4). The effluent limitations in the current permit for these two parameters were based on state standards, the respective receiving waters are in attainment for



these parameters, and the revisions are consistent with antidegradation requirements. See Section XII for information regarding antidegradation requirements.

Limits for Total Residual Chlorine are less stringent because of a change in the standards in 2009.

VII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

When determining what parameters need monitoring and/or limits included in the draft permit, both technology-based and water quality-based criteria were compared and the more stringent criteria applied.

Technology-based Limitations: As outlined in 40 CFR Part 133:

The regulations found at 40 CFR §133 require that POTWs achieve specified treatment standards for BOD, TSS, and pH based on the type of treatment technology available. Therefore, technology-based effluent limitations (TBELs) have been established in the permit for these parameters. Additionally, oil & grease will be monitored with a TBEL or an assessment level based on best professional judgment (BPJ). The average monthly assessment level of 10 mg/L and daily maximum of 15 mg/L are commonly accepted values that can be achieved by properly operated and maintained WWTPs. This level is also considered protective of the narrative standard at A.A.C. R18-11-108(B).

Numeric Water Quality Standards: As outlined in A.A.C. R18-11-109 and Appendix A:

Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with "reasonable potential" (RP), that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. RP refers to the possibility, based on the statistical calculations using the data submitted, or consideration of other factors to determine whether the discharge may exceed the Water Quality Standards. The procedures used to determine RP are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). In most cases, the highest reported value for a parameter is multiplied by a factor (determined from the variability of the data and number of samples) to determine a "highest estimated value". This value is then compared to the lowest applicable Water Quality Standard for the receiving water. If the value is greater than the standard, RP exists and a water quality-based effluent limitation (WQBEL) is required in the permit for that parameter. RP may also be determined from BPJ based on knowledge of the treatment facilities and other factors. The basis for the RP determination for each parameter with a WQBEL is shown in the table below.

Ammonia water quality criteria vary based on the effluent pH and temperature at the time of effluent sampling. As a result, no single ammonia concentration can be included as a permit limit. To overcome this, an Ammonia Impact Ratio (AIR) of 1 for the monthly average and a value of 2 for the maximum daily limits has been established as the permit limits for ammonia. The AIR is calculated by dividing the ammonia concentration in the effluent by the applicable ammonia standard based on the effluent pH and temperature at the time of sampling. AIR values will be reported on DMRs and on the Ammonia Data Log which is included as Appendix B in the permit.

It is assumed that RP exists for exceedance of water quality criteria for the pollutants *E. coli* and, if chlorine or bromine is used in the treatment process, total residual chlorine (TRC). These parameters have been shown through extensive monitoring of WWTPs to fluctuate greatly and thus are not conducive to exclusion from limitation due to a lack of RP. Therefore, the draft permit contains WQBELs for *E. coli* and TRC.



RP could not be calculated for other potential pollutants that are subject to numeric water quality standards due to laboratory results with a high limit of quantitation (LOQ). Instead of WQBELs, assessment levels (ALs) were established for Trace Substances (Table 2 in the permit). ALs and relatively frequent monitoring are necessary for these parameters because they are commonly present in WWTP effluents at variable concentrations and at a level that could exceed the applicable water quality criteria for them. (See discussion under "Assessment Levels" below for further details.) For a number of other pollutants, Effluent Characterization (EC) monitoring is required at a lesser frequency and without established ALs or numeric limits (Tables 4.a. – 4.f in the draft permit). (See discussion under "Effluent Characterization" below for further details.)

The proposed permit limits were established using a methodology developed by EPA. Long Term Averages (LTA) were calculated for each designated use and the lowest LTA was used to calculate the average monthly limit (AML) and maximum daily limit (MDL) necessary to protect all uses. This methodology takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits based on A&W criteria were developed using the "two-value steady state wasteload allocation" described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

<u>Mixing Zone:</u> Arizona water quality rules require that water quality standards be achieved without mixing zones unless the permittee applies and is approved for a mixing zone. Since the receiving stream for this discharge is ephemeral prior to the discharge, no water is available for a mixing zone and all water quality criteria are applied at end-of pipe. This means that the effluent concentration must meet stream standards.

Assessment Levels (ALs): ALs are listed in Part I.B of the permit. An AL differs from a discharge limit in that an exceedance of an AL is not a permit violation. Instead, ALs serve as triggers, alerting the permitting authority when there is cause for re-evaluation of RP for exceeding a water quality standard, which may result in new permit limitations. The AL numeric values also serve to advise the permittee of the analytical sensitivity needed for meaningful data collection. Trace substance monitoring is required when there is uncertain RP (based on non-detect values or limited datasets) or a need to collect additional data or monitor treatment efficacy on some minimal basis. A reopener clause is included in the draft permit should future monitoring data indicate water quality standards are being exceeded.

The requirement to monitor for these parameters is included in the draft permit according to A.A.C. R18-11-104(C) and Appendix A. Except for oil and grease, ALs listed for each parameter were calculated in the same manner that a limit would have been calculated (see Numeric Water Quality Standards Section above). The ALs for oil and grease were determined based on BPJ as described above.

<u>Hardness:</u> The permittee is required to sample hardness as CaCO₃ at the same time the trace metals are sampled because the water quality standards for some metals are calculated using the water hardness values. The hardness value of 121 mg/L (the average hardness of the effluent as supplied in the application) was used to calculate the applicable water quality standards and any assessment levels or limits for the hardness dependent metals (cadmium, chromium III, copper, lead, nickel, silver and zinc).



Whole Effluent Toxicity (WET): WET testing is required in the draft permit (Parts I.C and IV) to evaluate the discharge according to the narrative toxic standard in A.A.C. R18-11-108(A)(5), as well as whether the discharge has RP for WET per 40 CFR 122.44(d)(iv). At a minimum, the results reported on an AZPDES application must include quarterly testing for a 12-month period within the past year using multiple species or the results from four tests performed at least annually in the 4.5 years prior to the application.

WET testing for chronic toxicity shall be conducted using the following three surrogate species:

- Ceriodaphnia dubia (water flea) for evaluating toxicity to invertebrates
- *Pimephales promelas* (fathead minnow) for evaluating toxicity to vertebrates
- Pseudokirchneriella subcapitata (formerly known as Selenastrum capricornutum or Raphidocelis subcapitata) (a green alga) for evaluating toxicity to plant life

ADEQ does not have a numeric standard for Whole Effluent Toxicity. However, ADEQ adopted the EPA recommended chronic toxicity benchmark of 1.0 TUc for a four day exposure period. Using this benchmark, the limitations for WET included in the draft permit were calculated in accordance with the methods specified in the TSD. The species chosen for WET testing are as recommended in the TSD and in Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs.

An exceedance of a limit will trigger follow-up testing to determine if effluent toxicity is persistent. If toxicity above a limit or action level is found in a follow-up test, the permittee will be required to conduct a Toxicity Reduction Evaluation (TRE) and possibly a Toxicity Identification Evaluation (TIE) to identify the source of toxicity and reduce toxicity. These conditions are required to ensure that toxicants are not discharged in amounts that are toxic to organisms [A.A.C. R18-11-108(A)(5)]. A reopener clause is included in accordance with 40 CFR Parts 122 and 124 and AAC R18-9-B906.

The draft permit requires 24-hour composite samples be collected for WET testing. WET sampling must coincide with testing for all the parameters in Parts I.A and B of the draft permit, when testing of those parameters is required, to aid in the determination of the cause of toxicity if toxicity is detected. Additional procedural requirements for the WET test are included in the proposed permit.

The required WET monitoring frequency for this facility is consistent with the WET testing frequency required for facilities with a similar design flow. The draft permit requires WET test results to be reported on discharge monitoring reports and submittal of the full WET lab report to ADEQ.

<u>Effluent Characterization (EC)</u>: In addition to monitoring for parameters assigned either a limit or an AL, sampling is required to assess the presence of pollutants in the discharge at certain minimum frequencies for additional suites of parameters, whether the facility is discharging or not. This monitoring is specified in Tables 4.a. through 4.f., *Effluent Characterization Testing*, as follows:

- Table 4.a. General Chemistry and Microbiology: ammonia, BOD-5, *E. coli*, total residual chlorine (TRC), dissolved oxygen, total Kjeldahl nitrogen (TKN), nitrate/nitrite, oil and grease, pH, phosphorus, temperature, total dissolved solids (TDS), and total suspended solids (TSS)
- Table 4.b. Selected Metals, Hardness, Cyanide, and WET



- Table 4.c. Selected Volatile Organic Compounds
- Table 4. d. Selected Acid-Extractible Compounds
- Table 4. e. Selected Base-Neutral Compounds
- Table 4.f. Additional Parameters Based on Designated Uses (from Arizona Surface Water Quality Standards, Appendix A, Table 1)

NOTE: Some parameters listed in Tables 4.a. and 4.b. are also listed in Tables 1 or 2. In this case, the data from monitoring under Tables 1 or 2 may be used to satisfy the requirements of Tables 4.a. and / or 4.b., provided the specified sample types are the same. In the event the facility does not discharge to a water of the U.S. during the life of the permit, EC monitoring of representative samples of the effluent is still required.

The purpose of EC monitoring is to characterize the effluent and determine if the parameters of concern are present in the discharge and at what levels. This monitoring will be used to assess RP per 40 CFR 122.44(d)(1)(iii)). EC monitoring is required in accordance with 40 CFR 122.43(a), 40 CFR 122.44(i), and 40 CFR 122.48(b) as well as A.R.S. §49-203(A)(7). If pollutants are noted at levels of concern during the permit term, this permit may also be reopened to add related limits or conditions.

Permit Limitations and Monitoring Requirements:

The table that follows summarizes the parameters that are limited in the permit and the rationale for that decision. Also included are the parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for those decisions. The corresponding monitoring requirements are shown for each parameter. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements*, and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*.



| Parameter | Lowest Standard / Designated Use | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) |
|--|---|--|----------------------|-------------------------------|---|--|
| Flow | | | | | | Discharge flow is to be monitored on a continual basis using a flow meter. |
| Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) | 30 mg/L 30-day average 45 mg/L 7-day average/ Technology-based limits 40 CFR 133.102 | BOD: 45 mg/L TSS: 56 mg/L | BOD: 239 TSS: 239 | N/A | TBELs for BOD and TSS are always applicable to WWTPs. | Monitoring for influent and effluent BOD and TSS to be conducted using composite samples of the influent and the effluent. The sample type required was chosen to be representative of the discharge. The requirement to monitor influent BOD and suspended solids is included to assess compliance with the 85% removal requirement in this permit. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity, if toxicity is detected. |
| Chlorine, Total Residual (TRC) | 11 μg/L/ A&Wedw chronic | No Data System uses UV for disinfection | 0 | N/A | RP always expected when chlorine or bromine is used for disinfection. | TRC is to be monitored as a discrete sample and a WQBEL remains in the permit. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine. At least one sample per month must coincide with WET testing to aid in the determination of the cause of toxicity, if toxicity is detected. |
| E. coli | 30-day geometric mean: 126 cfu /100 mL (4 sample minimum) Single sample maximum: 575 cfu /100 mL/ PBC | 2419 | 1800 | N/A | RP always expected for WWTPs. See explanation above. | E. coli is to be monitored as a discrete sample and a WQBEL remains in the permit. |
| рН | Minimum: 6.5 Maximum: 9.0 A&Wedw and PBC A.A.C. R18-11-109(B) Minimum: 6.0 Maximum: 9.0 Technology-based limits 40 CFR 133.102 | Min: 6.2 Max: 8.3 | 365 | N/A | WQBEL or TBEL is always applicable to WWTPs. | pH is to be monitored using a discrete sample of the effluent and a WQBEL is set. 40 CFR Part 136 specifies that grab samples must be collected for pH. At least one sample must coincide with WET testing to aid in the determination of the cause of toxicity if toxicity is detected. pH sampling must also coincide with ammonia sampling when required. |
| Temperature | No applicable numeric standard | 28.9 | 335 | N/A | N/A | Effluent temperature is to be monitored for effluent characterization by discrete sample. 40 CFR Part 136 specifies that discrete samples must be collected for temperature. Temperature sampling must also coincide with ammonia sampling when required. |
| Total Dissolved Solids (TDS) | No applicable standard | 668 mg/L | 16 | N/A | N/A | Monitoring required for effluent characterization. |



| Parameter | Lowest Standard / Designated Use | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) | |
|---|--|------------------------------------|-------------------|-------------------------------|----------------------|---|--|
| Ammonia | Standard varies with temperature and pH | 12.2 mg/L (< WQS) | 1800 | N/A | RP Exists | Ammonia is to be monitored by discrete sample and a WQBEL in the form of an ammonia impact ratio (AIR) of 1 is set in the permit (5). An ammonia data log with concurrent pH and temperature monitoring is also required. One sample must coincide with WET sampling to aid in the determination of the cause of toxicity, if toxicity is detected. | |
| Nutrients (Total Nitrogen and Total Phosphorus) | No applicable standards | N/A | N/A | N/A | N/A | Monitoring required for effluent characterization. | |
| Oil & Grease | BPJ Technology-Based Level of 10 mg/L monthly average and 15 mg/L daily maximum | < 5 mg/L | N/A | N/A | RP Indeterminate (4) | Monitoring required and an assessment level / limit remains in the permit. | |
| Antimony | 600 μg/L / A&Wedw chronic | 1.1 μg/L | 17 | 1.32 μg/L | No RP | Monitoring required for effluent characterization. | |
| Arsenic | 150 μg/L / A&Wedw chronic | 4.8 μg/L | 17 | 5.76 μg/L | No RP | Monitoring required for effluent characterization. | |
| Beryllium | 5.3 μg/L / A&Wedw chronic | 2 μg/L | 21 | 4.6 μg/L | No RP | Monitoring required for effluent characterization. | |
| Boron | No applicable statndards | 140 μg/L | 3 | 784 μg/L | N/A | Monitoring required for effluent characterization. | |
| Cadmium (2) | 2.5 μg/L / A&Wedw chronic | 0.3 μg/L | 119 | 0.42 μg/L | No RP | Monitoring required for effluent characterization. | |
| Chromium (Total) | 1000 μg/L / AgL | 6.1 μg/L | 133 | 8.54 μg/L | No RP | Monitoring required as an indicator parameter for Chromium VI. | |
| Chromium VI | 11 μg/L / A&Wedw chronic | 6.1 μg/L | 105 | 11.2 μg/L | RP exists | RP exists and a WQBEL remains in the permit. | |
| Copper (2) | 11 μg/L / A&Wedw chronic | 16 μg/L | 121 | 20.8 μg/L | RP exists | RP exists and a WQBEL remains in the permit. | |
| Cyanide | 9.7 μg/L / A&Wedw chronic | 7 μg/L | 121 | 9.8 μg/L | RP Exists | RP exists and a WQBEL in the permit. | |
| Hardness | No applicable standard. Hardness is used to determine standards for specific metal parameters. | 130 mg/L | 15 | N/A | N/A | A&W standards for cadmium, chromium III, copper, lead, nickel, silver and zinc used for RP determinations were based on the average effluent of 121 mg/L. Monitoring for hardness is required whenever monitoring for hardness dependent metals is required. | |
| Hydrogen Sulfide | 2 μg/L / A&Wedw chronic | <0.04 μg/L | 12 | N/A | No RP | Monitoring required for effluent characterization. | |
| Iron | 1,000 ug/L / A&Wedw chronic | 41 μg/L | 17 | 86.1 μg/L | No RP | Monitoring required for effluent characterization. | |



| Parameter | Lowest Standard / Designated Use | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) |
|---------------------------------------|-------------------------------------|------------------------------------|-------------------|-------------------------------|------------------|---|
| Lead (2) | 3.1 μg/L / A&Wedw chronic | 12 μg/L | 121 | 16.8 μg/L | RP Exists | RP exists and WQBEL remains in the permit. |
| Mercury | 0.01 μg/L / A&Wedw chronic | 0.025 μg/L | 121 | 0.035 μg/L | RP Exists | Monitoring required and a WQBEL remains in the permit. |
| Nickel (2) | 61.1 μg/L / A&Wedw chronic | 370 μg/L | 121 | 518 μg/L | RP Exists | Monitoring required and a WQBEL remains in the permit. |
| Selenium | 2 μg/L / A&Wedw chronic | 2.5 μg/L | 120 | 3.25 μg/L | RP Exists | Monitoring required and a WQBEL remains in the permit. |
| Silver (2) | 4.5 μg/L / A&Wedw acute | 2.3 μg/L | 121 | 3.22 μg/L | No RP | Monitoring required for effluent characterization. |
| Thallium | 75 μg/L / PBC | 0.3 μg/L | 17 | 0.72 μg/L | No RP | Monitoring required for effluent characterization. |
| Zinc (2) | 138 μg/L / A&Wedw acute and chronic | 66 μg/L | 114 | 72.6 μg/L | No RP | Monitoring required for effluent characterization. |
| Benzidine | 0.01 μg/L / AgL | <10 μg/L | 10 | N/A | RP Indeterminate | RP is indeterminate based upon a high limit of quantitation (LOQ). Monitoring is required and an an assessment level remains in the permit. |
| Benzo(a)anthracene (PAH) | 0.2 μg/L / PBC | <0.24 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and an assessment limit remains in the permit. |
| Benzo(a)pyrene (PAH) | 0.2 μg/L / PBC | <0.61 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and an assessment limit remains in the permit. |
| Benzo(k)fluoranthe ne (PAH) | 1.9 μg/L / PBC | <0.67 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| 3, 4 - benzoflouroanthene | 1.9 μg/L / PBC | <0.67 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Bis(2-chloroethyl) ether | 1 μg/L / PBC | <0.6 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Di (2-ethylhexyl) phthalate (DEHP) | 360 μg/L / A&Wedw chronic | 0.4 μg/L | 20 | 0.92 μg/L | No RP | Monitoring is required for effluent characterization. |
| p-Bromodiphenyl ether | 14 μg/L / A&Wedw chronic | <0.32 μg/L | 20 | N/A | No RP | Monitoring is required for effluent characterization. |
| Chrysene (PAH) | 19 μg/L / PBC | <0.33 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Dibenz(ah)anthrace ne (PAH) | 1.9 μg/L/ PBC | <0.29 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Dibutyl Phthalate | 35 μg/L/ A&Wedw chronic | <0.77 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| 1, 4- Dichlorobenzene | 780 μg/L/ A&Wedw chronic | 0.13 μg/L | 18 | 0.31 μg/L | No RP | Monitoring is required for effluent characterization. |



| Parameter | Lowest Standard / Designated Use | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) |
|------------------------------|----------------------------------|------------------------------------|-------------------|-------------------------------|------------------|--|
| 3, 3'- Dichlorobenzidiene | 3 μg/L/ PBC | <19.8 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and an assessment limit remains in the permit. |
| 1, 2 - Diphenylhydrazine | 1.8 μg/L/ PBC | <0.31 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Hexachlorobutadien e | 8.2 μg/L / A&Wedw chronic | <0.8 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Hexachlorocyclopen tadiene | 0.3 μg/L / A&Wedw chronic | <0.032 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Indeno (1,23,-cd) Pyrene | 1.9 μg/L / PBC | <0.56 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| N-nitrosodimethly- amine | 0.03 μg/L / PBC | <0.56 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and an assessment limit remains in the permit. |
| Phenanthrene | 6.3 μg/L / A&Wedw chronic | <0.27 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| p-Chloro-m-cresol | 4.7 μg/L / A&Wedw chronic | <0.63 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| 2, 4-Dinitrophenol | 9.2 μg/L / A&Wedw chronic | <0.7 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| 4, 6-Dinitro-o-cresol | 24 μg/L / A&Wedw chronic | <1 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| 2, 4, 6- Trichlorophenol | 25 μg/L / A&Wedw chronic | <0.81 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Alachlor | 170 μg/L / A&Wedwchronic | <0.8 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Aldrin | 3 μg/L / A&Wedw chronic | <0.8 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Chlordane | 0.2 μg/L / A&Wedw chronic | <0.033 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| DDD | 0.001 μg/L / AgL | <0.049 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminated based upon a high LOQ. Monitoring is required and a WQBEL remains in the permit. |
| DDE | 0.001 μg/L / AgL | <0.049 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminated based upon a high LOQ. Monitoring is required and a WQBEL remains in the permit. |
| DDT | 0.001 μg/L / AgL | <0.055 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminated based upon a high LOQ. Monitoring is required and WQBEL remains in the permit. |
| Dieldrin (HEOD) | 0.06 μg/L / A&Wedw chronic | <0.044 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Endosulfan sulfate | 0.06 μg/L / A&Wedw chronic | <0.05 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |
| Endosulfan (Total) | 0.06 μg/L / A&Wedw chronic | <0.05 μg/L | 18 | N/A | No RP | Monitoring is required for effluent characterization. |



| Parameter | Lowest Standard / Designated Use | | Maximum Reported Daily Value | No. of Samples | Estimated Maximum Value | RP Determination | Proposed Monitoring Requirement/ Rationale (1) |
|-------------------------------------|---|--|------------------------------------|-------------------|-------------------------------|----------------------|--|
| Endrin | 0.004 μg/L / AgL | | <0.047 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and an assessment limit remains in the permit. |
| Endrin Aldehyde | 0.04 μg/L / A&Wedw chronic | | <0.49 μg/L | 4 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and a WQBEL remains in the permit. |
| Heptachlor | 0.01 μg/L / A&Wedw chronic | | <0.051 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and a WQBEL remains in the permit. |
| Heptachlor epoxide | 0.01 μg/L / A&Wedw chronic | | <0.045 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and a WQBEL remains in the permit. |
| Polychlorinated Biphenyls (PCBs) | 0.001 μg/L / AgL | | <0.041 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and a WQBEL remains in the permit. |
| 2, 3, 7, 8 – (TCDD) | 0.0009 μg/L / PBC | | 0.006 μg/L | 18 | 0.0014 μg/L | RP Exists | Monitoring required and a WQBEL remains in the permit. |
| Toxaphene | 0.0002 μg/L / A&Wedw chronic | | <0.00504 μg/L | 18 | N/A | RP Indeterminate | RP is indeterminate based upon a high LOQ. Monitoring is required and a WQBEL remains in the permit. |
| Whole Effluent Toxicity (WET) | No toxicity (A.A.C. R18-11-108(A)(6) | Pseudo- kirchneriella subcapitata (3) | 8 TUc | 18 | N/A | RP Exists | Monitoring required and a WQBEL remains in the permit. |
| | | Pimephales promelas | 1 TUc | 18 | N/A | RP Indeterminate (4) | Monitoring required and a WQBEL remains in the permit. |
| | | Ceriodaphnia dubia | 8 TUc | 18 | N/A | RP Exists | Monitoring is required and a WQBEL remains in the permit. |

Footnotes:

- (1) The monitoring frequencies are as specified in the permit.
- (2) Hardness-dependent metal the standard is for this parameter is based on the average hardness value of the effluent or receiving water as indicated above.
- (3) Formerly known as Selenastrum capricornutum or Raphidocelis subcapitata.
- (4) Monitoring with ALs or Action Levels always required for WWTPs for these parameters unless RP exists and limits are set.
- (5) An AIR will be calculated by dividing effluent ammonia concentration by the applicable standard using the receiving water pH and temperature.



VIII. NARRATIVE WATER QUALITY STANDARDS

All narrative limitations in A.A.C. R18-11-108 that are applicable to the receiving water are included in Part I, Sections E and F of the draft permit.

IX. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Additionally, monitoring may be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality.

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Monitoring frequencies for some parameters may be reduced in second term permits if all monitoring requirements have been met and the limits or ALs for those parameters have not been exceeded during the first permit term.

For the purposes of this permit, a "24-hour composite" sample has been defined as a flow-proportioned mixture of not less than three discrete samples (aliquots) obtained at equal time intervals over a 24-hour period.

These criteria for composite sampling are included in order to obtain samples that are representative of the discharge given the potential variability in the duration, frequency and magnitude of discharges from this facility.

Discrete (i.e., grab) samples are specified in the permit for parameters that for varying reasons are not amenable to compositing.

Monitoring locations are specified in the permit (Part I.A and Part I.J) in order to ensure that representative samples of the influent and effluent are consistently obtained. Monitoring of the influent at the International Outfall Interceptor (IOI) Manhole No. 1 is specified in Part 1.E of the permit.

The requirements in the permit pertaining to Part II, Monitoring and Reporting, are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e). The permittee has the responsibility to determine that all data collected for purposes of this permit meet the requirements specified in this permit and is collected, analyzed, and properly reported to ADEQ.

The permit (Part II.A.2) requires the permittee to keep a Quality Assurance (QA) manual at the facility, describing sample collection and analysis processes; the required elements of the QA manual are outlined.

Reporting requirements for monitoring results are detailed in Part II, Sections B.1 and 2 of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs), Ammonia Data Logs, and AZPDES Flow Record forms. The permittee is responsible for conducting all required monitoring and reporting the results to ADEQ on DMRs or as otherwise specified in the permit.

<u>Electronic reporting.</u> The US EPA has published a final regulation that requires electronic reporting and sharing of Clean Water Act National Pollutant Discharge Elimination System (NPDES) program information



instead of the current paper-based reporting (Federal Register, Vol. 80, No. 204, October 22, 2015). Beginning December 21, 2016 (one year after the effective date of the regulation), the Federal rule required permittees to make electronic submittals of any monitoring reports and forms called for in their permits. ADEQ has created an online portal called myDEQ that allows users to submit their discharge monitoring reports and other applicable reports required in the permit.

The permit also requires annual submittal of an Ammonia Data Log that records the results for temperature, pH, and ammonia samples and date of sampling (Part II.B.3). Because the ammonia standards in 18 A.A.C. 11, Article 1, Appendix A are contingent upon the pH and temperature at the time of sampling for ammonia, the permittee must determine the applicable ammonia standard using the ammonia criteria table(s) and calculate the Ammonia Impact Ratio for that ammonia sample result. The AIR is recorded on the DMR.

Requirements for retention of monitoring records are detailed in Part II.D of the permit.

X. BIOSOLIDS REQUIREMENTS (Part III in Permit)

All biosolids generated at this facility shall be disposed of in a landfill meeting the criteria in 40 CFR 258. If the permittees want to use or dispose of biosolids by another option, the permittees shall submit a request for a major modification to ADEQ including the proposed alternate plan for approval by ADEQ and the US. EPA.

XI. SPECIAL CONDITIONS (Part V in Permit)

Ambient Surface Water Monitoring

The regulations under 40 CFR 122.43(a) state that:

"(a) In addition to conditions required in all permits (122.41 and 122.42), the Director shall establish conditions, as required on a case-by-case basis, to provide for and assure compliance with all applicable requirements of CWA and regulations."

Monitoring and reporting at specified locations upstream and downstream of the outfall is required for the parameters and frequencies listed in Part V.F. Table 12.

Operation

This permit condition requires the permittee to ensure that the WWTP has an operator who is certified at the appropriate level for the facility, in accordance with A.A.C. R18-5-104 through -114. The required certification level for the WWTP operator is based on the class (Wastewater Treatment Plant) and grade of the facility, which is determined by population served, level of treatment, and other factors.

Pretreatment

A pretreatment program is in place for the NIWTP. Due to the multiple jurisdictions involved, the permit contains separate pretreatment requirements for the City of Nogales and the USIBWC.

USIBWC Requirements

The key elements and reporting requirements of the USIBWC pretreatment program are as follows:



- The USIBWC shall work with the Mexican Section of the IBWC (CILA) to take appropriate actions to prevent the discharge of untreated industrial wastewater into the international trunkline in order to preserve the efficiency of the Facility. In particular, the USIBWC shall work with CILA and through CILA work with the local authorities to prevent the introduction of pollutants into the international trunkline which will interfere with the operation of the Facility, including its use or disposal of sludge, pass through the treatment works, or otherwise be incompatible with such works, or cause to contribute to an applicable water quality standard in the receiving water.
- The USIBWC is required to work with Mexican Section of the IBWC (CILA) to improve communication between national and local authorities with respect to influent quality at the IOI, Manhole No. 1, and influent and effluent quality at the NIWTP, provide training to municipal entities and the business community in Sonora regarding pretreatment requirements and the impacts of influent exceedances, provide assistance to the appropriate municipal entities to improve monitoring capabilities; to improve laboratory analytical capabilities (including lab certification for the Nogales, Sonora water quality laboratory); and to assist in providing educational programs to the regulated community. The USIBWC is required to document these activities in an annual report to EPA and ADEQ.
- The USIBWC is required to monitor the influent for the twelve focus pollutants of concern (arsenic, cadmium, total chromium, copper, cyanide, lead, mercury, nickel, silver, selenium, zinc and 1,4-dichlorobenzene) which are based on the maximum allowable headworks loadings (MAHLs) plus a 25% safety factor as described in the Nogales International Wastewater Treatment Plant Maximum Allowable Headworks Loading Development (Final Report, Revision I) dated November 2009 (2009 MAHL Report). The MAHLs were converted from pounds per day to pounds per million gallons to maintain consistency with the influent objectives in the existing permit. The USIBWC will also determine whether the combined influent as well as the individual influent from the U.S. and Mexico exceed the appropriated influent limits. Monitoring of the influent from Mexico for the twelve focus pollutants will continue to be conducted for 30 consecutive days per quarter; quarterly monitoring of the treatment plant influent for the remaining toxic pollutants is also continued. The USIBWC is required to submit a quarterly report to ADEQ providing these monitoring data.
- If exceedances of the mass influent limitations are identified, the USIBWC is required to provide notification to national and local authorities in Mexico and Arizona. The USIBWC is also required to work with CILA to identify the source to address the exceedances.
- The USIBWC is required to prepare a technical presentation which clearly summarizes the results of the pretreatment monitoring data for International Outfall Interceptor (IOI), Manhole No. I and the plant's influent and effluent for each quarter. This information will be shared with CILA, EPA, and the ADEQ and posted on the IBWC Website.

City of Nogales

- The City of Nogales has reported no significant industrial users (SIUs).
- The City of Nogales is required to conduct monitoring of its influent contributions to the plant. If any SIUsis are identified during the permit term, the City of Nogales will be required to submit implement and enforce an approved pretreatment program, establish pretreatment program requirements, and conduct annual influent monitoring at its three force main receiving manholes.



Septage Acceptance Requirements

The permit requires that the USIBWC work with CILA to restrict discharges from septage haulers to the collection system within Nogales, Sonora and that the City of Nogales requires all septage haulers discharging to the collection system within its Control Authority report the source(s) of septage being delivered. No septage from non-domestic sources may be accepted.

Permit Reopener

This permit may be modified based on newly available information; to add conditions or limits to address demonstrated effluent toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if assessment levels in this permit are exceeded [A.A.C. R18-9-B906 and 40 CFR Part 122.62 (a) and (b)].

XII. ANTIDEGRADATION

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The discharge from the NIWTP will be to an ephemeral wash which will become (for purposes of this permit) an effluent-dependent water. Except for flows resulting from rain events, the only water in the wash will be the effluent. Therefore, the discharge and the receiving water will normally be one and the same. Effluent quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107.

XIII. STANDARD CONDITIONS

Conditions applicable to all NPDES permits in accordance with 40 CFR, Part 122 are attached as an appendix to this permit.

XIV. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.



Public Hearing (A.A.C R18-9-A908(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

EPA Review (A.A.C. R18-9-A908(C))

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

XV. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Surface Water Permits Unit
Attn: Mindi Cross
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Mindi Cross at (602) 771 – 2209 or by e-mail at cross.mindi@azdeq.gov.

XVI. INFORMATION SOURCES

While developing effluent limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

- 1. AZPDES Permit Application Form(s) 2A and 2S (or insert other forms submitted), received September 27, 2018, along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.
- 2. Supplemental information to the application received by ADEQ on October 10, 2018, and October 16, 2018.
- 3. ADEQ files on the Nogales International Wastewater Treatment Plant.
- 4. ADEQ Geographic Information System (GIS) Web site
- 5. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters*, adopted December 31, 2016.
- 6. A.A.C. Title 18, Chapter 9, Article 9. Arizona Pollutant Discharge Elimination System rules.
- 7. Code of Federal Regulations (CFR) Title 40:
 Part 122, EPA Administered Permit Programs: The National Pollutant Discharge Elimination



System.

Part 124, Procedures for Decision Making.

Part 133, Secondary Treatment Regulation.

Part 403, Pretreatment Program Requirements.

Part 503, Standards for the Use or Disposal of Sewage Sludge.

- 8. EPA Technical Support Document for Water Quality-based Toxics Control dated March 1991.
- 9. Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs, US EPA, May 31, 1996.
- 10. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA /821-R-02-013).
- 11. U.S. EPA NPDES Permit Writers' Manual, September 2010.
- 12. ADEQ 2016 Water Quality in Arizona 305(b) Assessement Report, Santa Cruz, March 13, 2018.
- 13. Nogales International Wastewater Treatment Plant Allowable Headworks Loading Development (Final Report, Revision 1), November 2009.